Calgary TRANSPORTATION PLAN

march, 1998

Monitoring
Discussion
Paper

103-05566/

A Vision Of Calgary at 1.25 Million Population

Calgary today is an auto dominant, auto dependent city. As the Calgary Transportation Plan evolves over the next 30 years, the vision is to gradually move toward a less auto dependent future. This vision is a departure from where we are now and reflects our aspirations rather than our current behaviour. It took decades to become an auto dependent city.

...Calgary is a thriving city of 1.25 million people. Since the 1990's, we've grown by 500,000 people, the equivalent of adding eight cities like Red Deer to Calgary.

We live closer to where we work, relying less on our cars for the shorter work trip and more on transit, walking and cycling. While the car remains the dominant choice of travel for Calgarians, investment in transit has resulted in a higher level of service and usage: shorter walk times to transit and LRT stops and preferential "transit treatment" make the transit trip more attractive and convenient.

We have slowed the rate of outward growth of the city, making a conscious effort to tighten up our neighbourhoods. Today, new and redeveloped older communities are a more diverse variety of housing mixes with a slightly higher concentration of dwellings per acre. Our downtown as a centre for employment has kept in step with market demand.

We have moved towards a "user pay" system as a significant funding source for our transportation system.

Whether we drive our cars or take public transit, we pay more equitably and directly for our choice in travel. In spite of more people moving around the city in more vehicles, efforts to promote efficient use of vehicular travel have helped maintain air quality standards at 1990 levels. We have moved toward "cleaner cars", and carry more people in our vehicles for the work trip. The trend toward "driving alone" to work each day has reversed. Changes in the way we work such as telecommuting and flex time have had some effect on spreading out the rush hour.

We made a deep commitment to protect our river valleys, our environmentally sensitive areas, and the integrity of communities. Wherever the need for new transportation links or river crossings are demonstrated, the tradeoffs between the mobility needs of Calgarians and environmental impacts have been carefully considered by Council and all Calgarians before decisions are made.

The vision was adopted by City Council at a public hearing on June 9,1994.

BACKGROUND

The Calgary Transportation Plan was approved by City Council at a public hearing on May 29, 1995. The Plan was developed through unprecedented involvement by the public, and extensive study and technical analysis. Early efforts of the public involvement program were focused on the public's goals and values surrounding transportation and land use. From this base of information, a clear "vision" of the kind of city Calgary could become over the next 30 years was developed.

The Plan is based on the vision, and the central theme of the vision is to accommodate growth in ways which create effective mobility options for all Calgarians - lessening our growing dependency on the automobile. The Plan set new directions for land use and transportation systems, to provide effective alternatives to automobile-based mobility, over time. It ensures that future generations will have a city that can provide the qualities that we enjoy today. The Plan clearly sets Calgary on a new course. Doing 'more of the same' and following the same travel behaviour trends of the past few decades is neither sustainable, nor desirable, based on the experience of other growing North American cities.

Meeting the challenge of expected growth over the next 30 years will require the support and determination of Calgarians, the Administration and their political leaders. Change must be championed by the community and resources focused on priorities to achieve our aspirations. Progress needs to be monitored at regular intervals over the years to ensure Calgary is moving in a direction that upholds the spirit of the Plan and the wishes of the citizens.

This Discussion Paper is one step in the monitoring and reporting system, a description of indicators of change, and an invitation for the community to express its views. The system is designed to ensure policy directives established in the Plan are being pursued, and that the inherent flexibiliiy of the Plan to respond to ongoing scrutiny and review is maintained. The monitoring system reflects the same collaborative and consultative process with the public through which Calgary Transportation Plan developed.

Ongoing discussion and policy decision making will depend on the ability of the monitoring system to promote the realization of Calgary Transportation Plan "vision" and help all Calgarians as the stewards of the Plan to 'stay the course' over a long period of time.

Public Values and Goals Regarding the Transportation System

The basis of the Calgary Transportation Plan are values expressed by the public. Through surveys and dialogue with the public, the values expressed as most important with respect to transportation were: mobility; time efficiency and convenience; safety and security; environmental preservation and quality; a sense of community; the efficient and effective use of resources; and affordability. Also important were: accessibility for persons with disabilities; seniors and persons with low incomes; user friendly transit; choice of modes; balancing transportation with other social needs; and participatory planning.

Transportation Goals

Public input on values important to transportation were used to develop the goals for the Calgary Transportation Plan. As statements of desired end results, these goals are the foundation of the Calgary Transportation Plan.

Transportation Goals

Safety:
To facilitate Calgarians' needs for travel in a safe, secure, convenient and comfortable manner.

Choice:
To provide a transportation system which offers a choice between various means of travel.

Accessibility:
To ensure reasonable accessibility to all areas of the city for all citizens.

Goods Movement:
To facilitate the movement of goods and services throughout Calgary.

Ongoing Consultation:
To develop and manage the transportation system through a comprehensive process of consultation, study and decision making.

Land Use Link:
To make compatible decisions about land use and transportation systems.

Respects Environment:
To provide transportation services in a manner which seeks to nurture and enhance the quality of our living environment and natural amenities.

Effective, Affordable, Efficient:
To provide transportation services in an effective, affordable and efficient manner.

User Pay:
To manage transportation services in a manner that promotes user pay concepts.

Serve Common Good and Individuals:
To provide transportation services on the basis of the collective interests of all Calgarians, while also being conscious of the interests of individuals.

Transportation Plan Monitoring Committee

The implementation and the monitoring of the Transportation Plan is the responsibility of the City Administration, primarily the Transportation Department. All Departments report through the Board of Commissioners, and Policy Committees to City Council which approve work programs and budgets. The primary vehicle for the Transportation Department to report to Council is through the Standing Policy Committee of Transportation, Transit & Parking (TT&P). The committee consists of seven Aldermen and meets monthly on transportation related issues, hearing from the Administration and the public. Using the example established by the GoPlan process of a cooperative, collaborative focus to solve strategic transportation related issues, a subcommittee of TT&P has been formed to guide the monitoring process.

The subcommittee consists of two elected officials, the Chair and Vice Chair of the policy committee, TT&P; two citizens appointed by City Council for a 3 year term; and three Administrative appointments (the Commissioner of Planning and Operations, the Director of the Planning and Building Department, and the Director of the Transportation Department).

The responsibilities of the Transportation Plan Monitoring Committee are:

- To review the implementation initiatives made by the Administration and their results;
- To consult with Calgarians and appropriate stake holders on the effectiveness of the Transportation Plan;
- To help draft and present the report card of the Transportation Plan to TT&P, Council and the citizens of Calgary;
- To comment on whether the Plan is meeting the expectations/targets over the three year cycle;
- To make recommendations on implementation initiatives, targets and amendments to the existing plan to TT&P, Council and to Calgarians.

Reporting on the implementation and monitoring is approached on a three year cycle consisting of the following schedule:

- In years one and three of the three year cycle, the committee will report to the TT&P Committee and Council with an annual report on initiatives and measures as determined; the subcommittee will meet at the call of the Chair;
- In year two, the subcommittee will report to TT&P Committee, Council and the public with a report card on initiatives, measures, targets and progress. The subcommittee will meet on a more frequent basis during the year, at the call of the Chair.
- Throughout the 3-year cycle, the Committee will pursue consultation with Calgarians and various stakeholders.

Monitoring Approach

The Calgary Transportation Plan is an active ongoing process; it establishes strategic direction but periodic progress checks must be undertaken to review whether the direction remains appropriate or needs adjusting. The monitoring approach provides mechanisms through which the Plan implementation can be monitored and updated, as required, on an ongoing basis.

The monitoring approach reflects the collaborative, consultative process through which the Calgary Transportation Plan was developed. The monitoring system produces a body of information which can be used to frame discussion and decision making on transportation policy. The monitoring approach also establishes the mechanisms for periodically involving and advising City Council and the citizens of Calgary of the status of the Plan.

Associated with the measures are expectations or targets. The basis for these is the change in value of the measure over time, or the change relative to population growth. Change over intervals of time has been selected as the manner in which to measure the plan's performance. This choice facilitates the reporting arrangements but recognizes that some targets are related to population growth.

To evaluate progress, a broad spectrum of measures and targets have been chosen to represent a comprehensive picture. The measures were selected to be as clear and unambiguous as possible to facilitate public understanding of the Plan, yet practical enough to facilitate data collection. The measures are both quantitative and qualitative, and act as a gauge of changes in program deliverables and in public values and behaviour. The measures represent the primary indicators of progress; additional indicators are used throughout the City Administration for purposes other than the Transportation Plan Review. It is important to realize that no individual measure in isolation can indicate how the plan is doing. The structure has been designed such that all the indicators are interrelated and have to be considered together.

DISCUSSION PAPER - HIGHLIGHTS

Much has taken place since Council approved the Calgary Transportation Plan in May 1995. As the Transportation Plan Monitoring Committee, we have been directed to watch, review and assess what is happening in implementation of the Plan. This is our first step toward preparing a monitoring report for Council.

This "Discussion Paper" is intended to prompt public discussion of Calgary Transportation Plan's implementation, highlighting how the external environment is changing (e.g. growth, funding sources, etc.), what's working and what's not. Here are a few of the highlights:

Changing circumstances:

unexpectedly high levels of economic and population growth: Calgary added 23,400 new residents in 1996/97; long-term forecasts have been revised such that Calgary is expected to grow by 20,000 – 22,000 people annually, reaching the 1.25 Million population level by 2018/2019, rather than in the year 2024 (as had been anticipated during the planning process several years ago).

a significant decrease in per capita spending for transportation during the 1994 – 1997 period, in comparison to spending in the previous 12 years. From 1991, when Provincial Transportation Capital Grants were $70 per capita, to 1997, with the grant now at $25 per capita, the cumulative loss to The City of Calgary for transportation capital funding for infrastructure has been over $170 million. The Provincial Transit Operating Grant of about $6 million per year was also eliminated.

unexpected difficulty in securing Provincial partnering in replacement of reduced transportation funds (i.e. sharing in fuel tax and vehicle license fees collected from Calgarians). In its submission to the Alberta Growth Summit in 1997, the City identified a gap of $450 million needed for essential transportation capital expenditures to the year 2005 and requested new forms of access to financial resources to support growth in all Alberta cities.

increasing levels of transit ridership and a positive shift in mode split to transit (in the down town) from 38% in 1996 to 40% in 1997.

Since 1995, initiatives completed or underway to implement the Calgary Transportation Plan have included:

creation of the **Transportation Plan Monitoring Committee**;

preparation of many **plans and special studies** (described in the Appendix);

ongoing communication with the public through issues of City Vision, educational materials, displays and numerous public presentations; and

construction of a limited number of transportation facilities.

Yet other actions which are not consistent with Calgary Transportation Plan implementation have included:

inadequate investment in required roadways (i.e. road widening, intersection upgrades, new interchanges) and increased transit capacity (i.e. new buses, LRT extensions and vehicles);

market-driven **land use decisions** undertaken recently that are not consistent with Calgary Transportation Plan aspirations and policies to locate jobs closer to where people live;

a **perceived rigidity and unpredictability** within the Administration in implementing new land use policies;

an overriding concern by the City that changing the **road standards** used in developing of new communities may create other problems, such as inadequate street parking or difficulty for service/emergency vehicles and, hence, a reluctance on the City's part to approve modified road standards; and expressions of concern by some groups that the City **is not following through on its commitment to implement the Calgary Transportation Plan** with adequate spending, consistent land use decisions, support for intensification and a willingness to be innovative in the development of new suburban areas.

One of the significant issues arising in the Calgary Transportation Plan implementation is the fact that the future "vision" cannot all be built on the first day. Short-term market conditions, neighbourhood resistance to multi-family housing projects and the lead time and energy required to re-orient the City's regulatory framework to be more responsive to the Plan's strategies have made the initial implementation of certain planning policies a challenge.

For some, these initial land use and development challenges suggest the Plan is not "realistic". For others, challenges are expected, as the community and its development processes evolve from a "more of the same" scenario to a pursuit of the "aspiration-based" goals. For all involved, the transition is not without its tensions and debates, and there is a growing sense that some of these issues would benefit from a broader public discussion at this stage.

VIEW FROM THE TRANSPORTATION PLAN MONITORING COMMITTEE - OBSERVATIONS:

In reviewing the changes, initiatives and challenges noted above, the Transportation Plan Monitoring Committee has been impressed with many of the follow-up actions and local planning processes undertaken to begin implementation of the Calgary Transportation Plan. Still, the Committee is concerned that the Plan is not being implemented as effectively or as quickly as it needs to be and that is causing problems, both for today and in terms of the ability to achieve the community's longer-term aspirations for quality of life and mobility. Specifically, these are some of our observations that we'd like to get your response to:

Because of the current high levels of growth . . .

travel demands are increasing more quickly than anticipated and Calgarians face increasing levels of traffic congestion and a growing sense of frustration due to longer travel delays.

the timeframe available for undertaking Calgary Transportation Plan infrastructure investments and implementing new policy directions is being substantially compressed, such that the 1.25 Million population threshold could be realized in a mere 20 years from now (in the years 2018/2019).

Because the level of transportation spending has not been adequate . . .

there seems little reprieve in sight for resolving growing congestion levels.

the immediate opportunity to capture even greater transit ridership and improve transit usage during morning and evening rush hours is being missed due to a lack of funds to increase transit capacity.

the improved transit services needed to counterbalance rising downtown parking rates and a tightening parking supply is not being provided and both businesses and commuters are frustrated.

there is less ability to adequately address safety issues in the transportation system to the extent felt desirable by the Monitoring Committee.

Because some recent land use decisions are not consistent with the Calgary Transportation Plan aspirations and policies . . .

some opportunities to accommodate more peak-hour jobs on the city's west side over the longer-term have been lost, and likely to the detriment of the transportation network's efficiency over the long-term.

opportunities to accommodate non-retail jobs in certain key population growth corridors will be delayed or compromised by the development of substantial retail uses in the short-term (many retail jobs do not result in vehicle trips during the peak hour so their location contributes little to solutions for reducing peak hour congestion levels).

opportunities for sensitive intensification in existing neighbourhoods, and a greater mix of housing types in new suburban neighbourhoods, are too often met by local community opposition to multi-family housing or higher densities in their immediate neighbourhoods.

In recent months there has been growing concern and sense of urgency about these issues and how they can be addressed, particularly in light of the City's limited financial capacity during a time of greater-than-expected population growth.

The Monitoring Committee is concerned that the lack of adequate funding and inadequate follow-through with consistent investment strategies, land use decisions and flexibility/innovation is seriously affecting the likelihood of the Plan's success.

Finally, and beyond the current shortfall of capital funds to expand the transportation system, the Committee would like to hear your views regarding two other important questions:

1. To what extent are Calgarians, and the business community, really committed to following-through on the principles of sustainability, as outlined in the Calgary Transportation Plan? including:

    - Supporting improved transit, walking and cycling options;
    - Supporting more diverse, compact and transit-supportive new suburban communities;
    - More closely integrating transportation systems and land use patterns;
    - Accommodating sensitive intensification throughout the city; and
    - Adjusting personal travel behaviour and/or the corporate work environment (e.g. car pooling, work at home, flexible work hours) to support Calgary Transportation Plan goals.

2. What is the appropriate balance to be sought between accommodating short-term market conditions and pursuing/protecting the Plan's longer term aspirations and strategies, where the two are in conflict ? For example,

    Where a variety of housing types are desired in communities, but the short-term market for varied housing types may be limited; or

    Where sites are well suited for employment concentrations over the longer- term, but only auto-oriented retail uses are viable in the short-term.

    What are appropriate responses by the City in such situations ?

WE WANT TO HEAR FROM YOU - AN INVITATION TO DIALOGUE:

The current situation raises a number of implementation issues that the Monitoring Committee would like to discuss with the public and those more directly affected by how the Calgary Transportation Plan is, or is not, being implemented. The results of the dialogue will be reported to Council this spring.

While not aimed at re-visiting the policy or strategy components of the Plan at this time, the monitoring process will focus on how effectively and how quickly the City and its citizens are moving toward implementing the Plan. The review will also highlight the extent to which broader forces, like economic/population growth and short-term market conditions are impacting the timing and likely achievement of the Plan's vision.

The Appendix in this Progress Report provides information on the indicators identified in GoPlan's Phase 5 Monitoring Framework. They offer a snapshot of how things are changing and the initiatives undertaken to implement the Plan to date. They are intended to provide a starting point for discussion.

The Calgary Transportation Plan Monitoring Committee invites your comments and suggestions.

CALGARY TRANSPORTATION PLAN MONITORING REPORT

Questionnaire

Reply to:

By Mail:

The City of Calgary,
Planning & Building
Information Department
(#8108)
Box 2100, Stn M,
Calgary, AB. T2P 2M5
Attn: CityVision
Lonny Gabinet, Editor
(268-5053)

By Fax:

268-4893

Having read the Vision Statement, and reviewed the information provided on the progress of the Calgary Transportation Plan, please respond to the following questions:

1. **Have you been provided with adequate information on CTP issues?** Yes ❑ Don't Know ❑ No ❑
2. **What is your level of support for the Vision as outlined in the Vision Statement?** High ❑ Neutral ❑ Low ❑
3. **What is your assessment on the progress of CTP implementation with respect to:**

	High	Neutral	Low
Location of New Housing	❑	❑	❑
Location of New Jobs	❑	❑	❑
Encouragement of Cycling/Walking	❑	❑	❑
Maintenance of Community Quality	❑	❑	❑
Maintenance of Environmental Quality	❑	❑	❑
Level of Property Tax Spending on Urban Transportation	❑	❑	❑
Level of Provincial Spending on Urban Transportation	❑	❑	❑
Provision of Bus Service	❑	❑	❑
Provision of LRT Service	❑	❑	❑
Provision of Road Capacity	❑	❑	❑

4. **What community do you live in?** _____

APPENDIX

The Monitoring System - Explanation

The purpose of the monitoring system is to provide comprehensive, clear information for discussion and decision-making on transportation policy. This can be done by establishing the questions to be answered and the form of the answer. Over time, the actual answers can compared to expected answers to assess whether the Plan is meeting expectations, and City Council can respond accordingly.

There are three main components that the monitoring system addresses:

FOLLOWING THROUGH

How is the City of Calgary following through on implementing the Transportation Plan?

GROWTH

How is Calgary growing?

PROGRESS

Is implementation of the Transportation Plan producing the equilibrium that is desired between:

- Community & Environmental Quality?
- Mobility?
- Costs/Affordability?

The first component, **"Following Through"**, identifies the actions required to implement the plan; the third component, **"Progress"**, describes the results expected/realized arising from implementation actions. The second component, **"Growth"**, is the balancing wheel of the plan. If the population and employment rates are faster or slower than the forecasts, then the actions to implement the plan and the results expected can be adjusted.

Components

These three main components are further detailed as follows:

FOLLOWING THROUGH	**Public Involvement**	How has public involvement in the monitoring process been accomplished?
	Planning Initiatives	What planning initiatives have been undertaken to implement the plan?
	Infrastructure / Service	How much transportation service and infrastructure has been provided?
GROWTH	**Population**	How is population growing?
	Employment	How is employment growing?
PROGRESS	**Community and Environmental Quality**	Is community and environmental quality changing as a result of implementing the land use, travel behaviour, and transportation network policies?
	Mobility	Is mobility satisfactory?
	Cost / Affordability	Is the cost of transportation affordable? Are new ways to pay for mobility being developed?

The Monitoring Framework

The monitoring system can be best described by means of a "Framework". For each of the three components - **FOLLOWING THROUGH, GROWTH** and **PROGRESS**, a framework was created consisting of:

1. **Establishing the key dimensions of each component** - the key dimensions are sub categories of the components, the specific areas that will be monitored.
2. **Developing performance indicators for each dimension** - the performance indicators are the specific measurements that will track the plan's progress. There are many other measures that could be used and many more detailed ones are collected for many purposes by the Administration. The monitoring structure is specifically designed to have a manageable number of measures; measures that are clear and understandable and, if possible, ones that are already being collected. If better indicators are developed in the future, the framework is flexible enough to include these or modify existing ones. It is important to realize that no one or two measures in isolation can indicate how the plan is doing.
3. **Setting expectations/targets for each performance indicator** - for each performance indicator expectations/targets have been developed. These are both quantitative as well as qualitative, with the 1991 or base year values indicated, three short term horizons of three years each, and the expectation/target found in the 1.25 M population vision. As the monitoring proceeds, the horizons will move over the 30 year period to 2024. The expectations/targets are used as a benchmark on progress.

The structure has been designed such that all the indicators are interrelated and have to be considered together. In some cases, the indicators may point to the need by the Transportation Plan Monitoring Committee to consider more detailed information to determine what is happening and what the response might be.

Results:

4. *The actual performance achieved on the individual indicators are documented. These results are inter-related and need to be considered together.*

Components

FOLLOWING THROUGH

PUBLIC INVOLVEMENT

Dimensions

1. Public Consultation

DISCUSSION:

The Calgary Transportation Plan calls for a process that will invite public input as specific components of the Transportation Plan are reviewed or implemented. This includes:

- Developing appropriate mechanisms for monitoring and evaluating the Plan's performance over time.
- Identifying mechanisms for advising Council, on a periodic basis, of the status of the implementation initiatives, performance of the Plan and the need to review any aspects of the Plan, as required.
- Survey data collected using various survey instruments during the course of the GoPlan project (1991 - 1995) provides a baseline snapshot of Calgarians' attitudes and values with regard to transportation.
- During this time of primary importance to Calgarians was: community and environmental quality, mobility and cost/affordability. These were the three primary components on which the plan is based.

Public perception surrounding these three components should be tracked over time to assess how important these components are relative to the baseline GoPlan data. In addition to determining if the importance of these issues has changed, the Transportation Plan Monitoring Committee should assess the Plan's progress toward meeting the public's expectations. The public should be surveyed with regard to these issues every three years, and adjustments to the plan made accordingly.

Performance Indicators

1. On-going Calgary Transportation Plan Monitoring Committee established to over see plan monitoring and public consultation on the Plan.
2. Administrative Organizational Structure established to support the Transportation Plan Monitoring Committee.
3. Annual Transportation Monitoring Status Report published with "report cards" to the public every third year.
4. Public meetings/workshops schedule by the Transportation Plan Monitoring Committee.
5. Public to be surveyed every three years with respect to their perceptions of the importance of three key components on which the plan is based; namely, community and environmental quality, mobility and cost/affordability. Further, the Transportation Plan Monitoring Committee should track the plan's progress in meeting the public's expectations over time.
6. Major review of the Calgary Transportation Plan to be undertaken approximately every 10 years.

Expectations/Targets

1. Monitoring Committee operating on a continuing basis.
2. Administrative responsibilities for monitoring/implementation identified on an on-going basis.
3. Annual publication with report cards to Calgarians every three years.
4. Program reviewed annually by Monitoring Committee.
5. Public Survey every three years.
6. Major review of the Calgary Transportation Plan in approximately 2005.

Results:

1. *The Transportation Plan Monitoring Committee has been established by City Council and is operating.*
2. *An Administrative Implementation Committee has been established and is operating.*
3. *Three issues of the City Vision newsletter on the Calgary Transportation Plan have been published by December 1997.*
4. *Public meetings/workshops have been scheduled for 1998.*
5. *The City of Calgary undertook a customer satisfaction survey in 1997. Over one thousand citizens were surveyed between April 21 and May 15. The purpose of the survey was to obtain a measure of the level of customer satisfaction with City services, including Transportation, determining the attitudes of Calgarians with regard to services provided and obtaining feedback on specific experiences of citizens in dealing with City of Calgary departments and services (see Public Perception Dimensions for results).*
6. *Major review will be conducted in 2005.*

Components

FOLLOWING THROUGH

PUBLIC INVOLVEMENT

Dimensions

2. Education/Awareness

DISCUSSION:

The need for constant information, explanation and education about what Calgary Transportation Plan is trying to achieve has proven to be a significant challenge in the Calgary Transportation Plan implementation process. While extensive consultation and awareness occurred during the GoPlan process, it focused more on longer-term issues and aspirations and not on the practicalities of implementing the Calgary Transportation Plan's strategies and policies in the short-term.

Performance Indicators

1. Educational material prepared/updated.
2. On-going awareness campaign.

Expectations/Targets

1. Education Program reviewed annually by the Calgary Transportation Plan Monitoring Committee.
2. Awareness Program reviewed annually by the Calgary Transportation Plan Monitoring Committee.

Results:

Since 1995, many local planning processes have occurred and, in each instance, there has been a strong need to connect community or facility specific planning issues to the "bigger picture" of Calgary Transportation Plan. In addition, there has been a high need to inform the staff, applicants and other participants engaged in the ongoing development review process as to what Calgary Transportation Plan is trying to achieve and how to interpret and implement its policies for a specific site or planning process.

Educational material prepared/updated. Education materials have been prepared and updated as forecasts and/or changing circumstances have required.

Results:

Examples include the preparation/distribution of school curriculum kits through the local school systems and completion of a Calgary Transportation Plan educational video. Ongoing "education" also takes place through public consultation associated with ongoing strategic and area/facility-specific planning studies.

On-going awareness campaign:

Awareness of Calgary Transportation Plan issues, actions and results has been sustained through a combination of published materials, presentations and displays, ongoing media coverage and in-house information sessions for those involved in Calgary Transportation Plan implementation. The third issue of City Vision was distributed to 20,000 readers in November, 1997. Each issue provides updates on forecasts, planning studies, travel behaviour, guest editorials and relevant information from other cities. Calgary Transportation Plan presentations have been made to numerous business groups, community groups and throughout the Civic Administration. Calgary Transportation Plan information has been incorporated into displays, media coverage and most planning studies/documents undertaken since 1995.

Expectations/targets. (as per Phase 5 Monitoring Report) - met.

Components

FOLLOWING THROUGH

PLANNING INITIATIVES

Dimensions

1. Planning Studies

DISCUSSION:

Achievement of the Transportation Plan Vision will require considerable effort and commitment in the future. To guide the changes required by the Vision, a variety of planning studies will need to be undertaken.

In approving the Calgary Transportation Plan, City Council outlined a number of studies to be addressed as a matter of priority. Further studies will be required as the future unfolds and will need to be prioritized by City Council and the Administration Committee.

Performance Indicators

1. Progress on planning studies, prioritized by City Council, to further the progress of the Plan;
2. Progress on Sarcee Trail South Right-of-Way resolution;
3. Transportation Improvement Priority Study (TIPS) updated on the basis of Transportation Plan Vision, Goals and policies.

Expectations/Targets

1. Complete or initiate planning studies arising from approval of the Transportation Plan May 29, by 1997. The studies include:
   - Revision to General Municipal Plan (Municipal Development Plan);
   - Fish Creek Growth Area Management Plan;
   - 14th Street Transportation Plan;
   - Inner City Transportation Study;
   - Deerfoot Trail Operational Review.
2. Determine strategy for progress on Sarcee Trail South ROW by 1997.
3. Complete or initiate the TIPS update by 1997. Review every 6 years.

Results:

1. Progress on Planning studies, prioritized by City Council, to further the progress of the Plan:

Completed studies include:
- *Deerfoot Trail Operational Study;*
- *14th Street S.W. Functional Study;*
- *Calgary Transit - Capital Investment Requirements, 1998-2005, and*
- *Calgary Transit - LRT Expansion Strategy.*

Studies underway include:
- *Short-stay Parking (downtown);*
- *Fish Creek Growth Area Management Plan (GRAMP);*
- *Calgary North Growth Area Management Plan (GRAMP);*
- *Shawnessy Centre Plan;*
- *TIPS update;*
- *Inner City Transportation Study (ICTS);*
- *Municipal Development Plan update;*
- *CFB Special Study;*
- *146th / Anderson LRT Station redevelopment concepts study;*
- *Transit Friendly Design Guide for the Inner City, and*
- *Industrial Sidewalk Policy.*

2. Progress on Sarcee Trail South right-of-way resolution:
- *Very preliminary discussions have been held with the Tsuu T'Ina Nation.*

3. TIPS updated on basis of Transportation Plan Vision, Goals and Policies:
- *Initial TIPS analysis/list updated in 1995, following Calgary Transportation Plan approval; and*
- *Revised TIPS process underway.*

Components

FOLLOWING THROUGH

PLANNING INITIATIVES

Dimensions

2. Business Plans

DISCUSSION:

The Business Plans guide the activities of the City departments. Relevant City departments will integrate the Calgary Transportation Plan in their business plan..

Performance Indicators

Ongoing integration of Calgary Transportation Plan policy direction in Transportation, Planning & Building, Engineering & Environmental Services and other relevant departments' Business Plans.

Expectations/Targets

Compatibility between Transportation Plan and Transportation Department, Planning & Building Department, Engineering & Environmental Services and other relevant departments' Business Plans and clarification in the plans as to how these departments' initiatives/programs will contribute to the achievement of the Transportation Plan vision.

Results:

Following Council's approval of Calgary Transportation Plan the Transportation and the Planning and Building departments began integrating Calgary Transportation Plan objectives and priorities into their 1996 - 1998 Business Plans. Calgary Transportation Plan's vision and goals were expressed as departmental priorities (in defining work programs and allocating resources) and presented as underlying themes guiding policy development and, in transportation areas, capital and operating budget considerations.

Substantial resources were committed to undertaking Calgary Transportation Plan - initiated planning studies. Calgary Transportation Plan related workstreams were given high priority and a number of interdepartmental projects were set in motion (e.g. TIPS, Growth Area Management Plans). Integration at the policy level and a "Corporate" approach were emphasized. A Calgary Transportation Plan Corporate Implementation Team was created to guide inter-departmental workstreams and projects.

Results:

1. *Continuing challenges will be to ensure consistency and effectiveness in the implementation of Calgary Transportation Plan objectives throughout the Corporation's broad span of programs and responsibilities on an ongoing basis, particularly those related to the ongoing review of permit applications.*

   Greater attention could be given in other department's Business Plans to identifying the implications and priority of Calgary Transportation Plan initiatives as they affect / are affected by their respective spheres of operation.

   The Corporate Business Plan which is being updated, will give continued prominence and commitment to managing growth in the context of the Calgary Transportation Plan.

2. *Developing alternate approaches and incentives to create the kinds of changes in development that will further Calgary Transportation Plan objectives.*

Components

FOLLOWING THROUGH

PLANNING INITIATIVES

Dimensions

3. Budgets

DISCUSSION:

The plan sets directions in the areas of land use, facilities (including both roads and transit) policies, and suggestions for future programs such as transportation demand management, and mobility and congestion management. It is intended as a guide for setting directions - not to be a "master" to be followed without question in the future. Detailed implementation of policies and programs will be the subject of future studies and approvals by Committees and Council to achieve all parts of the Plan and the Vision. They will be undertaken by City departments through their normal work programs in the context of budget and manpower constraints.

Performance Indicators

Integration of Transportation Plan policy direction in Transportation, Planning & Building, Engineering & Environmental Services and other relevant departments' budgets.

Expectations/Targets

Compatibility between Transportation Plan and Transportation, Planning & Building, Engineering & Environmental Services and other relevant departments' budgets.

Results:

Budgets documents refer to the Corporate Plan Goals and strategies which commit to allocating resources to implementation of the Calgary Transportation Plan, and to related activities such as the Transportation Improvement Priority Study (TIPS) and the Sustainable Suburbs Study. Explicit reference is made to these studies in the Budget narratives for Engineering and Environmental Services, Planning and Building, and Transportation Departments.

Components

FOLLOWING THROUGH

INFRASTRUCTURE/ SERVICE

Dimensions

1. Calgary Transit Service

DISCUSSION:

Public transit plays an important social, environmental and economic role in Calgary. It provides basic mobility allowing Calgarians to participate in the social and economic life of the community. Efficient, high-quality public transportation reduces the environmental impact of auto use and provides an alternative travel option to individuals and the community.

The strategy to increase use of public transit encompasses:

- Land use planning, such as: more transit-friendly communities, increased downtown housing, new jobs situated closer to transit; and improved pedestrian environments;
- Using appropriate fare strategies;
- Decreasing transit travel time by providing preferential treatment to transit by traffic control;
- Improving connections through route and schedule design and improved waiting environment at bus zones; and
- Intermodal improvements, such as cycle/transit and park & ride facilities;
- Providing a higher level of transit service than the early 1990's.

Over thirty years, service frequency would increase by about 40%, with service improvements directed strategically at particular market segments. The specific provision of service depends on affordability. See later discussion on Affordability. Implementation decisions by Council will be made through annual budgets.

Performance Indicators

The hours of transit service per capita measures the amount of transit service being provided.

Expectations/Targets

	1991	1997	2000	2003	2024
Annual hours of service/capita	1.86	1.85	1.93	2.01	2.50

Results:

Hours of service per capita have remained constant at 1.86 between 1991 and 1997

Components

FOLLOWING THROUGH

INFRASTRUCTURE/ SERVICE

Dimensions

2. Construction

- LRT SYSTEM

DISCUSSION:

Calgary Transit operates an integrated light rail transit (LRT), combined with conventional bus and community shuttle bus service. The LRT opened in 1981 on the south leg and is currently comprised of three legs focused on the Downtown - The system is 29 kilometres in length with a fleet comprised of 85 light rail vehicles.

Between 1994 and 1997, Calgary Transit ridership grew by 22 percent from 54.0 to 66.1 million trips - more than three times the rate of population growth. Weekday ridership on the C-Train increased by 35 percent in the same period to 137,000 weekday customers.

During peak periods, service on all C-Train lines is operating near capacity, with many trips reported as overloaded. Customers are becoming increasingly critical of crowded conditions on the C-Trains and there are no LRV's available to respond to Calgary's continuing population and ridership growth.

To accommodate future population growth in new communities and achieve the expected performance of the transit system as contained in the CTP, the plan calls for phased construction of extensions to the existing south, northwest and northeast legs, requiring an additional 26.5 km of new LRT construction to occur in this period. Without additional capital investment for LRT expansion, the ability to serve future demand and achieve the CTP modal split targets is in jeopardy.

Performance Indicators

Progress in developing the LRT system will provide a commitment to increasing transit use to the Downtown and within the South, Northwest and Northeast corridors, over the next 30 years.

It is necessary if we are going to achieve the plan, to complete the following LRT extensions between 1998 and 2008: By 2005, LRT expansion should include:

- extension of the south line to 146 Avenue S.W. (3.5 km)
- extension of the northwest line to 53 Street N.W. (3.0 km)
- extension of the south line to 162 Avenue (2.6 km)

By 2008, LRT expansion should include:

extension of the northeast line to Westwinds (2.0 km)

The construction timing would be determined through TIPS, the capital budget processes and approvals by City Council. The amounts are cumulative over the plan horizon and do not necessarily imply a completed, operational extension by the monitoring dates. The construction of specific LRT extensions depends on affordability (see later discussion on Affordability).

Expectations/Targets

	1997	2000	2003	2024
New LRT Constructed (kms)	0	2.0	6.7	26.5

Results:

No LRT construction is scheduled in the 1998-2003 budgets. This does not meet expectations. Funding alternatives for LRT construction remains under review.

Components

FOLLOWING THROUGH

INFRASTRUCTURE/ SERVICE

Dimensions

2. Construction

- SKELETAL ROAD SYSTEM

DISCUSSION:

Key to supporting mobility for Calgarians and a strong economy is an effective road system. A "skeletal" roadway network is a grid of primary travel corridors that will support the growth of Calgary and maintain mobility for the 30 year period. The network consists of four north/south and four east/west freeway and expressway standards roads, which would ultimately provide non-stop or free-flowing travel continuity. Constructing new roads and/or upgrading many existing facilities beyond the skeletal network is also required over the next 30 years as conditions warrant and the urban growth occurs.

Performance Indicators

- Skeletal network upgraded/constructed

Progress in developing the skeletal road network will serve to indicate investment in the roadway network generally. Progress on the skeletal network can be measured by the length of roadway upgraded or constructed, and number of interchanges built. The timing of implementation of skeletal roadway projects (upgrades and new construction) will be dependent on the location and pace of future city growth and will continue to be assessed through the TIPS process. By 2003, it is anticipated that seven kilometres of new or upgraded skeletal roadway will be constructed. During this period, no interchanges in the skeletal system are scheduled to be built.

Upgrades to existing roads and new roadway construction that are not part of the skeletal network will also be provided as the need arises, and all projects will be prioritized through the TIPS process. The construction of specific roadway depends on affordability (see later discussion on Affordability). Implementation decisions by Council will be made through annual budgets.

Expectations/Targets

	1997	2000	2003	2024
Skeletal network upgraded/ constructed (kms)	0	2	7	143
New interchanges on the skeletal network, constructed (#)	0	0	0	31

Results:

No upgrading of the skeletal network was expected by 1997. The Stoney Trail between Crowchild Trail and Trans Canada Highway was under construction when the targets were set and it was opened in 1997.

Components

GROWTH

POPULATION

Dimensions

1. Population Growth

DISCUSSION:

Population growth causes increased demands for transportation services. There are two generators of population growth: natural increase and net migration. Natural increase is the difference between the number of births and the number of deaths each year. Statistics show that fertility rates, generally, have been on the decline; while people are living a longer life due to advances in medical technology, fewer babies are being born. The increase in Calgary's level of natural population over the past five years has been relatively stable at about 7,400 people per year.

The second generator is net migration, which is the difference between the number of people leaving Calgary and the number of people moving to Calgary in a year. Net migration is a less predictable growth component.

The Transportation Plan is based on an assumption of continued population growth from both generators but primarily net migration in the latter part of the plan horizon.

Beyond overall growth in population, where the population is located is a key determinate of transportation demand.

Part of the design of the final plan was to move the "axis" of population growth to the east to further reduce the need for additional river crossings in the west.

Growth Indicators

1. Citywide population

Expectations/Targets

Citywide population

1991	1997	2000	2003	2024
708,593	770,000	800,000	831,000	1,216,000

Results:

Growth over the past two years has been very strong, surpassing the Calgary Transportation Plan target for 1997 (an expected population of 770,000) by over 20,000, yielding a 1997 Calgary population of 790,500. This growth resulted from very strong levels of economic expansion and Calgary's relative attractiveness as a place to find work.

Results:

Net migration to Calgary over the 1996/97 period was 16,100 persons, with Calgary capturing roughly 60% of Alberta's new housing starts (in urban centres) during the first half of 1997.

The implications of strong population growth in the short-term can be magnified over the longer-term. Where Calgary Transportation Plan had expected to achieve the 1.25 Million population level in the year 2024, updated forecasts now anticipate that threshold being reached in the 2018/19 timeframe, reducing the time horizon for achieving Calgary Transportation Plan's objectives by a full 5 years. The unexpectedly high population growth, coupled with limited funds being made available for investment in transportation infrastructure and services, has resulted in increasing levels of congestion throughout the road network and a transit system running at near capacity levels during the peak hour.

% Population Growth East of Axis

One indicator of the location of population growth would be an imaginary north/south axis running along Deerfoot Trail north of the downtown, and generally following MacLeod Trail south from the downtown. Over the long-term, it is expected that the distribution of new population growth will generally gravitate more toward the north, south, southeast and northeast, as lands in the west and northwest approach the city's existing municipal boundary. As a benchmark, new communities to the west of the reference line accommodated roughly 60% of the population growth from 1991 to 1996, with those to the east reflecting a 40% share.

Components

GROWTH

EMPLOYMENT

Dimensions

1. Employment Growth

DISCUSSION:

The amount, nature and location of employment affects the need for transportation services. Employment growth in Calgary's industries will not be uniform over the next thirty years nor will all sectors be evenly affected. The energy sector, for example, is expected to maintain a healthy, stable level of growth for the foreseeable future.

The public administration, finance, insurance and real estate sectors are expected to grow very modestly over the period while the services to business, manufacturing, transportation, communication, and trade sectors are forecast to grow more strongly than others.

Employment in sectors such as health and education services is strongly tied to population growth and aging. As a consequence, employment growth in many of the services sectors will be modest over the next decade and increase more rapidly in the remaining portion of the forecast period. Employment in each sector of the Calgary economy was projected to develop at annual rates determined from both past and expected patterns in that industry, and will be updated and amended during the Plan horizon.

Because of the large, centrally located concentration of employment in the Downtown, it has an important influence on transportation service needs.

Growth Indicators

1. City-wide employment.
2. Downtown employment.

Expectations/Targets

City Wide Employment

1991	1997	2000	2003	2024
370,224	393,000	409,000	427,000	602,000

Downtown employment

86,272	88,000	90,000	92,000	108,500

Results:

The growth in jobs having a "fixed location" in Calgary rose from 352,200 in 1991 to an estimated 377,400 in 1996, an increase of roughly 25,250 jobs over the 5 year period. New jobs were located in the northeast (20%) and southeast (17%) industrial areas, spread across the urban area to provide services to expanding residential growth corridors (18%) and, to a lesser extent, in suburban mixed-use nodes. Downtown employment growth was modest during the early 1990's, but has increased more recently. In general, the period from 1991 through 1995 was one of moderate employment growth in Calgary.

However, the level of economic activity and job creation in 1996 and 1997 exceeded expectations, placing pressure on rents and vacancy rates in the downtown office market and similarly on commercial space throughout the northeast and southeast industrial areas.

Calgary currently has an extensive inventory of commercial and industrial lands to accommodate economic activity and job growth in established commercial areas. Calgary Transportation Plan is pro-active in trying to create opportunities for non-retail jobs to locate in the northwest, west and southwest sectors. Recent planning initiatives (e.g. Shawnessy Centre, Strathcona Centre study, CFB) attempt to create and enhance the available land supply for commercial activities in predominantly residential corridors. However, it remains clear that the relative competitiveness of new suburban employment locations, particularly on the city's west side, will face a significant competitive challenge from established commercial areas for the foreseeable future.

At the same time, recent modeling and transportation analysis confirm the strategic advantages of attracting jobs to those residential corridors where jobs are relatively few, improving the jobs/population balance and supporting the possibility of shorter trips and a more modest increase in crosstown traffic than would otherwise be the case over the long-term.

Components

PROGRESS

COMMUNITY and ENVIRONMENTAL QUALITY

Dimensions

1. Public Perception

DISCUSSION:

Survey data collected using various survey instruments during the course of the GoPlan project (1991 - 1995) provides a baseline snapshot of Calgarians' attitudes and values with regard to aspects of transportation. At that point in time, of primary importance to Calgarians were: community and environmental quality, mobility and cost/affordability. These were the three primary components on which the plan is based.

Public perception surrounding these three components should be tracked by the Transportation Plan Monitoring Committee over time to assess how important these components are relative to the baseline GoPlan data. In addition to determining if the importance of these issues has changed, the Transportation Plan Monitoring Committee should assess the plan's progress toward meeting the public's expectations. The public should be surveyed with regard to these issues every three years, and adjustments to the targets made accordingly.

Performance Indicators

Some of the issues that should be considered in this survey include traffic intrusion in communities, noise impacts, perception of security, and environmental quality.

Expectations/Targets

Maintain public satisfaction levels over time.

Results:

In the 1997 Corporate Customer Satisfaction Survey, 93.5% of the survey respondents rated the general quality of life in Calgary as either 'good' or 'very good'.

Components

PROGRESS

COMMUNITY and ENVIRONMENTAL QUALITY

Dimensions

2. Sustainable Suburbs

DISCUSSION:

The Calgary Transportation Plan moves Calgary in the direction of designing more sustainable communities where mixing land uses could help cut down on the number and length of car trips made. With Council's approval of the Sustainable Suburbs Study in 1995 the planning of new suburban communities began to place greater emphasis on achieving more walkable neighbourhoods, with a greater mix of land uses and housing types. It is intended that, over the longer term, new communities will be better able to adapt to the changing lifestyle and housing needs of their residents as they age.

The Calgary Transportation Plan recognized that the city already has a substantial inventory of suburban plans (Area Structure Plans) and approved land uses that provide guidance in the development of many new suburban communities. These plans and land use approvals preceded Council's approval of the Calgary Transportation Plan's suburban policies and, as such, it was not anticipated that there would be a noticeable change in the achieved densities, housing mix, job/population ratios or physical design of new communities in the first few years following Calgary Transportation Plan's approval.

Performance Indicators

1. Jobs/population balance:
   - Established Suburbs;
   - New Suburbs.
2. Average density approved in new subdivisions (units per acre - "UPA").
3. % of approved subdivision acreage that is "sustainable" (the Planning & Building Department will have to determine an index or criteria to measure sustainability).

Expectations/Targets

	1991	1997	2000	2003	2024
1. Job/population balance					
• Established Suburbs	0.22	0.22	0.23	0.24	0.30
• New Suburbs	0.07	0.07	0.08	0.10	0.22
2. Average Density (UPA)	5	5	5	5.3	7
3. % Sustainable	0	10	50	100	100

Results:

To date, Council has approved two new community plans (Midnapore III and East Springbank Phase I), both planned and designed on the basis of sustainability principles. Further plans are underway in South McKenzie, Cinnamon Hills and the East Springbank Phase I area, all intended to create more adaptable, efficient communities. The development industry (UDI) has expressed its reservations about the ability to actually build communities that achieve 7 units/acre in the current marketplace. In response, a joint City/UDI study is currently being undertaken to identify new mechanisms for achieving and implementing a more compact suburban form, including a review of both regulatory innovations and more efficient options in the provision of public spaces and infrastructure.

Data describing the average density approved in new subdivisions and the % of approved subdivision acreage that is "sustainable" are not available as yet.

Components

PROGRESS

COMMUNITY and ENVIRONMENTAL QUALITY

Dimensions

3. Air Quality

DISCUSSION:

There are three continuous monitoring stations located in Calgary. Each unit is equipped to monitor various air quality and meteorological parameters on an hourly basis.

The Calgary stations are equipped to monitor ambient concentrations of carbon monoxide, oxides of nitrogen, ozone, total hydrocarbons and the coefficient of haze. The Calgary residential and industrial stations monitor wind speed and direction. Carbon dioxide is monitored at the Calgary downtown unit.

The quality of air depends upon the quantity of pollutants emitted and dispersion factors. Air quality is affected by turbulence (vertical motion of air), temperature structure (e.g. inversions), wind (direction and speed), and topography.

Performance Indicators

Index of the Quality of Air (IQUA)

The IQUA was developed by a federal-provincial committee in 1978. The index reports numbers based on ambient concentrations of specific pollutants.

The IQUA converts the measurements of five pollutants (sulphur dioxide, ozone, carbon monoxide, coefficient of haze and nitrogen dioxide) to a single rating and corresponding air quality description (see GoPlan Air Quality Policy Paper PPS No. 04-03-95).

Expectations/Targets

In 1990 at the downtown location, air quality was good 96.06% of the time and fair 3.85%; the residential location was good 97.76% of the time and fair 2.18%; the industrial location was good 90.68% of the time and fair 8.61%. The target is to maintain Air Quality at the 1990 levels.

Results:

In 1996 the air quality was good 99% of the time at the downtown location, 97% of the time at the residential location, and 98% of the time at the industrial location. This indicates that air quality levels are being maintained.

Components

PROGRESS

COMMUNITY and ENVIRONMENTAL QUALITY

Dimensions

4. Respect for Natural Areas and Parks in development of Transportation Infrastructure.

DISCUSSION:

Results of the public participation in the GoPlan process clearly expressed a strong desire for the evaluation of impacts to natural areas as well as the protection of existing significant natural environments. The majority of river crossings have been removed from the Transportation Bylaw; however, the potential for impacts on other natural environments remains, including those west of the Weaselhead. Existing inventories and a newly developing biophysical impact assessment process by the Calgary Parks & Recreation Department will monitor, evaluate and provide choices regarding future developments.

Performance Indicators

1. Required Biophysical Impact Assessments ("BIA's") completed.
2. Alignments selected to respect natural environment/recreational open space features.

Expectations/Targets

1. All projects will undergo a Biophysical Impact Assessment.
2. The City will maintain significant representative habitat types and significant natural system features.
3. Comprehensive mitigation efforts will accompany all transportation projects that impact significant natural areas.

Results:

Biophysical Impact Assessment undertaken to determine route of Deerfoot Trail Southbound extension crossing the Bow River

Stoney Trail crossing of Bow River constructed with comprehensive mitigation efforts.

Components

PROGRESS

COMMUNITY and ENVIRONMENTAL QUALITY

Dimensions

5. Employment Concentrations

DISCUSSION:

Where and how new jobs are situated is one of the most important strategic elements in achieving Calgary Transportation Plan's vision for Calgary. The suburbanization of jobs in Calgary has resulted in the downtown's percentage share of jobs declining for several decades. However, new suburban jobs have not typically located in proximity to transit facilities or necessarily close to new residential growth corridors. As such, the evolving pattern has been one of growing car reliance for the daily work trip, and generally one where commuters move crosstown to jobs in other sectors.

The Calgary Transportation Plan attempts to counterbalance this trend with an emphasis on creating new jobs in established residential sectors (e.g. northwest, west and southwest) and by creating significant mixed-use, employment concentrations central to the north and south growth corridors.

Performance Indicators

1. Jobs in the town centres.
2. Jobs in mixed use nodes.

The average length of the work trip reflects not only geographic size of the city but also the separation between where people live and work. While the targets are increased it is to a lesser extent than what it would be if current trends were to continue.

Expectations/Targets

	1991	1997*	2000*	2003*	2024
Town Centres	N/A				45,000
Mixed Use Modes	N/A				

	1991	1997	2000	2003	2024
Average Length of Work Trip (kms)	11.9	12.4	12.6	12.8	14.6

*** Interim targets will be developed as the Growth Area Management Plans and other studies are completed.**

Results:

In 1995 a plan was initiated for the Shawnessy Centre area, the major employment concentration south of Fish Creek. The plan is nearing completion and will be before Council in 1998. The proposed Shawnessy Centre Plan attempts to set in place an innovative framework to accommodate a substantial number of jobs and public facilities close to LRT over the long term, while still permitting retail uses in the interim. That plan, and planning process, is dealing with many of the complex issues involved in encouraging a new form of development that is not, at present, represented in Calgary's development landscape.

Planning is beginning for the North employment area along either side of Deerfoot Trail, north of McKnight Boulevard. That planning is occurring in the context of the North Calgary Growth Area Management Plan and will identify the form, servicing and development considerations relevant to that future employment concentration.

To date, jobs accommodated in mixed-use nodes (e.g. Westhills, Crowfoot) and at Shawnessy Centre have been largely for retail and personal services businesses. These uses are viable in the present context but are raising concerns about traffic generation, the nature of their physical environments for pedestrians and, for the long term, the extent to which they will facilitate or hinder the intensification of commercial uses (e.g. office) at those sites as the city grows.

Recent Council decisions related to the Strathcona Centre have resulted in a substantial reduction in the amount of developable land which could be available for employment uses over the long term at that location.

Components

PROGRESS

COMMUNITY and ENVIRONMENTAL QUALITY

Dimensions

6. Parking

DISCUSSION:

The role of parking as a travel demand management measure is most effective in areas of concentrated activity, such as the downtown. The relationship between the use of auto parking and public transit is documented in the report Calgary Downtown Parking and Transit Study - Summary Report PPS No. 3-12-94.

The study found a direct relationship between the amount of long-stay parking and transit usage: the more stalls provided, the lower the willingness to use transit. The supply of long-stay downtown parking should be managed to match a downtown modal split objective, such as described below.

In 1991, 39% of work trips to the downtown were taken on transit. Over the next 30 years, a 50% transit goal is desirable and achievable for downtown Calgary. This goal can be achieved by:

- Following a long stay parking policy matching parking and transit usage;
- Retaining existing downtown parking standards in the Land Use By law 2P80;
- Reducing long-stay parking by absorbing peripheral surface parking lots through residential and/or other development;
- Reducing the number of long-stay parking stalls over the next 30 years. When combined with an increased number of employees working downtown, a reduction in the ratio of stalls per employee would encourage more commuters to take transit. The Canadian data indicated that for a 50% modal split, the long-stay parking supply corresponds to approximately 26 long-stay parking stalls per 100 downtown employees.

The division of the downtown parking supply between long-stay and short stay use is in constant flux. City Council has directed that a review be undertaken of downtown short-term parking needs, policies and management practices. Pending the outcome of this study, monitoring the total downtown parking supply potentially available to commuters is proposed.

Performance Indicators

Monitoring the number of total downtown parking stalls and Park'n'Ride (transit) stalls , per 100 downtown employees will show progress in this area. Monitoring the downtown population will indicate generally the surface parking lots that are being redeveloped.

Expectations/Targets

	1991	1997	2000	2003	2024
Long-Stay Stalls/100 employees	46	45	43	41	26
Downtown Population	10,000	12,500	14,000	15,500	25,000
Park'n'Ride stalls/100 downtown employees	8.3	8.2	8.0	10.0	13.5

Results:

Between 1991 and 1997 the downtown parking supply and downtown parking both increased by approximately 5%. The estimated downtown population increased from 10 000 to 11 000 persons between 1991 and 1997. There were 310 Park 'n Ride stalls added to the LRT system at Brentwood station.

Components

PROGRESS

COMMUNITY and ENVIRONMENTAL QUALITY

Dimensions

7. Safety

DISCUSSION:

Calgarians value safety and it is a goal of the Transportation Plan to maintain a safe transportation system. Safety of the system depends on user behaviour, the vehicle, the state of the roadway system and enforcement of rules. Increasing levels of vehicular travel and congestion will increase the exposure to risk.

Performance Indicators

Safety can be assessed by the occurrence of reported accidents on a per capita basis. The criteria for reporting accidents varies over time (e.g. the damage value for which an accident must be reported) and the data will have to be interpreted accordingly.

Expectations/Targets

To maintain safety at current levels of 45 accidents per 1000 population.

Results:

Traffic accidents per 1000 population were 41 in 1996, indicating no overall deterioration in safety of the transportation system.

However, the Administration is of the view that a more rigorous stretch objective accident rate should be established for the Calgary area to more fully recognize the high value put on safety.

The "new" accident rate is under review.

Components

PROGRESS

MOBILITY

Dimensions

1. Public Perception

DISCUSSION:

Survey data collected using various survey instruments during the course of the GoPlan project (1991 - 1995) provides a baseline snapshot of Calgarians' attitudes and values with regard to transportation. At that point in time, of primary importance to Calgarians was: community and environmental quality, mobility and cost/affordability. These were the three primary components on which the plan is based.

Public perception surrounding these three components should be tracked over time to assess how important these components are relative to the baseline GoPlan data. In addition to determining if the importance of these issues has changed, the Transportation Plan Monitoring Committee should assess the plan's progress toward meeting the public's expectations. The public should be surveyed with regard to these issues every three years.

Performance Indicators

Some of the issues that should be considered in this survey would include perceptions on ease of travel, mobility, and the transit service.

Expectations/Targets

Maintain public satisfaction levels over time.

Results:

In 1997 Corporate Customer Satisfaction Survey 92.5% of respondents rated getting around Calgary as 'easy' or 'very easy'. Transit Service was rated 'good' or 'very good' by 81.7% of respondents.

The results of the 1997 Calgary Transit Customer Survey also verify that Calgarians have a high level of satisfaction with 80 percent of respondents rating the service, "about what was expected" and 19 percent, "much better than expected." The highest rated aspects of Calgary Transit service are related to Calgary Transit staff and the services provided to assist customers' travel. However, transit customers are becoming increasingly concerned with quality of service in regard to service being crowded and seat availability. Growing customer concerns about overcrowding have significant implications on Calgary Transit's ability to increase its market share for peak period work travel due to present constraints on the availability of buses and C-Trains.

Components

PROGRESS

MOBILITY

Dimensions

2. Ease of Travel

DISCUSSION:

Calgarians value mobility. In response, Council requested the development of mobility/congestion management strategies. The term "mobility /congestion management" implies a dual purpose: on one hand, providing the benefits of mobility to society, yet on the other tempering the undesirable consequences of our collective car dependent travel behaviour.

Mobility management means building facilities to provide Calgarians with adequate mobility and travel choices. As a tool, it enhances quality of living by providing a safe, secure, convenient and comfortable means of transportation to all users. Mobility management also ensures the effective and efficient movement of goods and services throughout Calgary for the economic benefit of Calgarians.

Congestion management is the flip-side of mobility management. It uses congestion as a tool to influence travel behaviour. Congestion can be used to discourage peak period or rush hour commuting, or encourage the switch from travelling by private automobile to transit and other modes. If distributed strategically, congestion can be effective in influencing how we travel and lead to reduced infrastructure costs.

Mobility/congestion management acknowledges the limitations that may have to be placed on mobility. For any situation, there must be a reasonable balance between the level of mobility provided, and undesirable consequences of mobility - congestion, increased costs and environmental damage. Guidelines reflecting public expectations for a reasonable quality of mobility are set by City Council. These guidelines give consistent direction to a variety of applications, from long range strategic planning to daily operations.

Performance Indicators

The percentage of the system exceeding "traffic jam" condition* in the a.m. peak hour will represent performance in this area. (*•Defined•as•level of service "E" by City Policy). This is a system-wide indicator, not intended to determine the need for any specific road or interchange improvement.

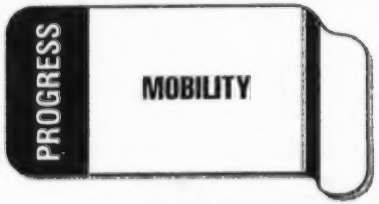
Expectations/Targets

Maintain 90% of freeway/expressway and major road system at or above Level of Service "E" in the a.m. peak hour.

Results:

In 1997 the percentage of the freeway/expressway and major roadway system at a quality level better than "traffic jam" condition was 90.4%, in the a.m. peak hour maintaining, for the present time, expectations for ease of travel.

Components



Dimensions

3. Goods Movement

DISCUSSION:

A large proportion of the traffic on Calgary's roads is the movement of goods and services within, and to destinations outside of, Calgary.

A major player in Calgary's economy, this sector's success is due to Calgary's central location and the quality of the internal road system. A major tool to facilitate the movement of goods and services is through the city's Truck Route and Hazardous Goods Bylaws. Developed in conjunction with the trucking industry, these by-laws are a key implementation link in the Plan. Facilitating the movement of goods and services throughout Calgary is a goal of the Calgary Transportation Plan.

Performance Indicators

Monitoring the level of service on a representative sample of routes accommodating the movement of goods and services will reflect performance in this area.

Expectations/Targets

Maintain 90% of a selected "index basket" of goods and services routes at a quality of mobility above a traffic jam condition (Level of Service "E"), in the morning peak hour.

Results:

In 1997 the "index basket" of goods and services routes was estimated to have 90% of its length at a quality of mobility above traffic jam conditions maintaining, for the present time, expectations.

Components

PROGRESS

MOBILITY

Dimensions

4. Transit Service

Discussion:

Implicit in the Transportation Plan is that public transit service will be emphasized to attract ridership. It is anticipated that this will be achieved through a number of techniques and strategies include land use strategies.

One of the key strategies is to increase, over the 30 year period, the current service frequency (or headway) by about 40% for buses and LRT, primarily by increasing the number of buses and LRT vehicles in service.

Performance Indicators

- Frequency

Although headways for transit service are anticipated to be improved throughout the day, increased service in the peak hours of travel (when much of the transit passenger trips are made) will have a significant impact on system usage. The current average city-wide peak hour frequency is about 18 minutes. Over the thirty year period, service is expected to improve to an average of 12 minutes.

Expectations/Targets

	1991	1997	2000	2003	2024
Frequency (Average city-wide peak hour frequency in minutes)	19	18	17	17	12

Results:

In 1997 the average peak hour frequency was 18 minutes, which meets the expectation.

Components

PROGRESS

MOBILITY

Dimensions

4. Transit Service

DISCUSSION:

Coverage is a measure of the availability /accessibility of Calgary Transit Services to provide basic mobility to Calgarians. This objective is contained within Calgary Transit's Mission Statement. As growth occurs, the transit network must continue to expand to service developing suburbs.

Annual transit ridership per capita is a good measure of how much the system is being used. Over recent years, ridership has remained steady at about 76 annual rides per capita. Over the next 30 years, expansion of the LRT and bus networks and improved headway should result in significantly higher transit usage throughout the City.

Performance Indicators

- Coverage
- Annual Ridership

Coverage of the city by transit services is monitored by the percentage of the developed area of the city that is within 450/400 metres walking distance to transit service for residential areas developed before/since 1997. Annual transit ridership is measured by the number of rides per person.

Expectations/Targets

	1991	1997	2000	2003	2024
Transit Coverage (Percentage of developed city area within policy walking distance of transit service)	95	95	95	95	95
Ridership/Capita	76	78	80	83	100

Results:

In 1997 transit route coverage was maintained at a 95% level within policy walking distance.

Between 1994 and 1997 year-end, Calgary Transit ridership grew by 22 percent from 54 million to 66.1 million. This rate of ridership increase is more than three times the rate of population increase over the same period. This rapid ridership gain is attributed to population and employment growth, a lower rate of unemployment and increasing levels of transit service (i.e., new routes, extended operating hours, more frequent service). Ridership growth has occurred on virtually all routes, in all parts of the city and for all types of travel.

On a per capita basis, transit use has increased from 76 trips per year in 1991 to 84 trips per year in 1997, exceeding the target of 78. More than three-quarters of the population uses Calgary Transit service and about one-third of the population base uses the service on a regular weekly basis.

Based on LRT expansion and recommended bus fleet growth, it is anticipated that Calgary Transit annual ridership will increase from 66.1 million revenue trips in 1997 to over 80 million in 2005. Without infrastructure investment however, it is estimated that ridership growth may only reach 68 million customers by 2005. Over the 8 year period, the cumulative lost ridership would total approximately 38 million trips which would be diverted to other travel modes.

Components

PROGRESS

MOBILITY

Dimensions

5. Social

DISCUSSION:

It is estimated that seven percent of adult Calgarians (approximately 42,000) are considered disabled with regard to transportation. This segment is defined as those Calgarians unable to use transportation, or use such services with more difficulty than the general population due to health or condition.

Calgary's population is aging. By 2021 approximately 15% of the projected 1.2 million population will be over 65 years of age compared to 7.8% of the 708,000 Calgarians in 1991. An increase in the proportion of seniors will result in an increase in the transportation disabled population. This, in turn, will increase the demand for specialized services.

The Calgary Transportation Plan recognizes that access to the community is a necessity for all citizens to assume a full and active role in society. The importance of specialized transportation services and accessible transit service is recognized as a means to support social integration and gain access to community services.

The primary mode of travel of the transportation disabled is by car as a driver or passenger, similar to Calgarians in general. The transportation disabled use public transit less than the general population, and taxis more. Many of those using conventional buses have difficulty with getting on and/or off, getting to the stop, standing in a moving vehicle, or waiting at a stop. Therefore, a wide range of transportation services is provided for seniors and persons with disabilities. These include: the Senior Citizen's Transit Pass, Handi-Bus, Special Needs Taxi Service, low-floor Calgary Transit buses and accessible taxis. This "family of services" provided by Calgary Transit, City Social Services Department and Calgary Handi-Bus Association will continue to provide the varying transportation needs of senior and persons with disabilities.

Performance Indicators

The percentage of the Calgary Transit fleet accessible to mobility challenged persons is a partial measure of progress in this area.

Expectations/Targets

	1991	1997	2000	2003	2024
Percentage of Calgary Transit bus fleet for mobility challenged	0%	25%	41%	54%	100%

Results:

In 1997, 23% of the public transit bus fleet was equipped to be accessible to the mobility challenged (134 of 573 buses). In 1998, 34 more low-floor buses are on order. Vehicles accessible to the mobility challenged are allocated to routes with the highest propensity for need, and service is coordinated with other special needs services.

Components

PROGRESS

MOBILITY

Dimensions

6. Choice

DISCUSSION:

To reduce auto dependency, the Transportation Plan seeks to provide a transportation system which offers a choice between various modes of travel. The initiatives to do this encompass land use planning and implementation, provision of infrastructure and delivery and pricing of services. The combined effect of a comprehensive range of initiatives will be reflected in citizen travel behaviour.

Every day Calgarians are faced with choices. These choices may be about how they will travel to work (i.e. mode choice - typically walk cycle, transit, auto and auto passenger) OR do they need to travel to work (e.g. may choose to work at home). It is this travel to work behaviour that strongly influences the transportation system that is required. Over the next 30 years, it is anticipated that lifestyles will change, in particular in the workplace, and in travel to and from workplaces. Consequently, travel requirements will be different from today.

One of the goals of The Plan is to provide choices between the various travel modes and Calgarians have said that, in many cases, travel by transit, cycle and walking are viable choices that should be encouraged.

Performance Indicators

Mode Choice:

Over the next thirty years, a greater emphasis will be placed on reducing our auto dependency and encouraging greater use of transit and other modes for the work trip to the downtown and for non-downtown travel. The following indicators (in percentages) will show if travel behaviour is changing over time:

- Downtown a.m. peak hour modal split: walk/cycle, transit, vehicle, vehicle passenger
  [Home-to-Work Trips]
- Non-Downtown a.m. peak hour modal split: walk/cycle, transit, vehicle, vehicle passenger
  [Home-to-Work Trips]

Lifestyle Choice:

From analysis undertaken during preparation of the Plan, it was evident that work and workplace changes are taking place. For example, over the previous decade part-time employment had increased from 11% to 19% and was predicted to reach 30% over the next 30 years. The predicted lifestyle changes will likely result in more working at home, more telecommuting, increased part-time work, more flex-time and compressed work weeks. These will all impact the current rate at which work trips are generated in the peak hour. The net effect of these factors is anticipated to be a 10% reduction in the work trip generation rate over the next 30 years. (Further work is required to establish measurable performance indicators).

Expectations/Targets

	1991	1997	2000	2003	2024
• Downtown a.m. peak hour modal split % [Home-to-Work Trips]:					
- walk/cycle	8.8	8.8	8.9	9.0	9.0
- transit	39.2	39.9	40.9	42.0	50.0
- vehicle	39.7	39.0	38.0	37.0	29.7
- vehicle passenger	12.3	12.3	12.2	12.0	11.3
• Non-downtown a.m. peak hour modal split % [Home-to-Work trips]:					
- walk/cycle	3.9	4.0	4.0	4.0	4.0
- transit	5.9	6.0	6.2	6.4	7.9
- vehicle	82.9	82.0	81.4	80.9	77.3
- vehicle passenger	7.3	8.0	8.4	8.7	10.8
• Work/lifestyle change [% reduction in peak hour work trip generation rate]	N/A	2	3	4	10

Results:

The Downtown area peak hour modal split % (home-to-work trips) in 1997 was calculated as:

- *walk/cycle* 9
- *transit* 40*
- *vehicle* 39
- *vehicle passenger* 12

For non-downtown area peak hour modal split % (home-to-work trips) was calculated as:

- *walk/cycle* 3
- *transit* 5
- *vehicle* 85
- *vehicle passenger* 7

Work/Lifestyle change: Information is not yet available on this measure.

***Note: Transit modal split is estimated to have declined between 1991 and 1994,, and risen since 1994.**

Components

PROGRESS

COST AFFORDABILITY

Dimensions

1. Public Perception

DISCUSSION:

Survey data collected using various survey instruments during the course of the GoPlan project (1991 - 1995) provides a baseline snapshot of Calgarians' attitudes and values with regard to transportation. At that point in time, of primary importance to Calgarians were: community and environmental quality, mobility and cost/affordability. These were the three primary components on which the plan is based.

Public perception surrounding these three components should be tracked by the Transportation Plan Monitoring Committee over time to assess how important these components are relative to the baseline GoPlan data. In addition to determining if the importance of these issues has changed, the Transportation Plan Monitoring Committee should assess the plan's progress toward meeting the public's expectations. The public should be surveyed with regard to these issues every three years.

Performance Indicators

The actual survey instrument will be determined by the Transportation Plan Monitoring Committee. Some of the issues that wold be considered in this survey include perception of whether public transit was being funded adequately, or is the system being developed cost effectively; the survey should also measure the public's support of on user pay options.

Expectations/Targets

Maintain public satisfaction levels over time.

Results:

In the 1997 Corporate Customer Satisfaction Survey 89.7% of respondents rated City services as "good" or "very good". 66.1% of respondents expressed the opinion that the current level of property taxes going to City services was "about right".

A desire for increased services was expressed by:

1.8% - more/better planned roads,
19.5% - transit, 28.1% road/streets maintenance,
30.2% - snow removal

Components

PROGRESS

COST AFFORDABILITY

Dimensions

2. Affordability

DISCUSSION:

Calgary will require extensive additions to the transportation and transit systems as Calgary grows to a population of 1.25 million people. The total cost of building, maintaining and operating these systems over the thirty years was estimated to be in the order of $9 billion ($1994). To ensure this investment was being made effectively and efficiently, an expectation or target was set to maintain or lower gross per capita transportation and transit costs over the thirty-year horizon.

Performance Indicators

1. The average annual cost per capita for building, maintaining and operating the transportation and transit systems will measure performance relative to the cost. Costs will be adjusted to account for inflation.
2. Investigation of the most effective revenue and financing alternatives to meet The City's operating expenditure and capital investment needs.

Expectations/Targets

1. Gross Per Capita Operating and Capital Transportation and Transit Costs ($1994 dollars).

1983-1994	1995-2024 (est)	1994-1997
$399	$378	$302

2. Ten year capital spending study to be updated on a regular basis.

Results:

Gross Per Capita Transportation and Transit Costs (1994)

In the four years, 1994 to 1997, the per capita spending was down almost 25% (to $302 per person) from the previous 12 years.

Rather than being an indicator of effective and efficient spending, it flags that the current annual level of capital investment in transportation and transit is dramatically less than what would be required to ensure all identified facilities are in place within the thirty-year horizon. The fact that Calgary will likely reach the 1.25 million population level several years earlier than originally forecast, only worsens the situation.

The measure highlights the real urgency to resolve the Province's role in transportation funding - through larger transportation grants, or a longer term plan to revenue share, i.e., a share of fuel tax revenue dedicated to municipalities.

Components

PROGRESS

COST AFFORDABILITY

Dimensions

3. User Pay

DISCUSSION:

Concerns about cost, affordability and the efficient use of resources were common themes when Calgarians discussed the future growth of the city during the GoPlan process. While surveys indicated that Calgarians were generally willing to pay to maintain mobility choices, there was also a sentiment that users should pay more directly for their choice of travel. The other reality was that sources of funding, particularly from other levels of government, were not expected to be as significant in the future.

Expectations/Targets

Breakdown of Transit/Transportation Average Gross Operating Revenues:

	1985-1994
- General mill rate support (%)	47
- User fees including fare box revenues (%)	29
- Provincial operating grants (%)	24

* Secure provincial cooperation on other user pay options within 6 years.

Results:

Breakdown of Transit/Transportation Average Gross Operating Revenues:

	1994-1997
- General mill rate support (%)	*76*
- User fees including fare box revenues (%)	*21*
- Provincial operating grants (%)	*3*

The initial target was to secure provincial cooperation on user pay revenues within six years. To date, that cooperation has not been secured.

However, it has been, and remains, a high priority for The City in its ongoing discussions with the Provincial Government. Of particular concern to Calgary is the equitable redistribution of provincial revenues raised through fuel taxes and vehicle license fees. Currently, the Province receives approximately $200 million per year in fuel tax revenues and vehicle registration fees. The annual transportation grant to The City is only $20 million although the Province does contribute up to $10 million per year more in grants for special periodic projects such as the Stoney Trail project.